Patent claims

1. Hydrophilic immobilization layer for biosensors made of a radically cross-linked hydrogel based on polyacrylamide, where the initial composition comprises acrylamide,*cross-linkers, radical initiätor(s), at least one comonomer with reactive linker groups and where necessary softeners.

2. Hydrophilic immobilization layer made of a photostructured hydrogel, based on polyacrylamide, where the initial composition comprises acrylamide,*cross-linkers, photoinitiätor(s), at least one film former, at least one comonomer with reactive linker groups and where necessary softeners.

3. Hydrophilic immobilization layer in accordance with Claim 1 or 2, characterized in that the cross-linker is an acrylic or methacrylic compound.

4. Hydrophilic immobilization layer in accordance with Claim 3, characterized in that the cross-linker is Methylenebis(meth)acrylamide and/or Dimethacryl acid ester.

5. Hydrophilic immobilization layer in accordance with one of the Claims 1 to 4, characterized in that the comonomer with reactive linker groups is Maleic acid anhydride and/or Glycidyl(meth)acrylate.

6. Hydrophilic immobilization layer in accordance with one of the Claims 1 to 5, characterized in that the softener is Mono, Di and/or Triethyleneglycol.

7. Hydrophilic immobilization layer in accordance with one of the Claims 1 to 6, characterized in that the initial composition is present in a polar solvent mixable with water.

8. Hydrophilic immobilization layer in accordance with Claim 7, characterized in that the solvent is Dimethylformamide.

9. Hydrophilic immobilization layer in accordance with one of the Claims 2 to 8, characterized in that the film former is Polyvinylpyrolidone, Polyacrylamide and/or Polyhydroxymethacrylate.

10. Hydrophilic immobilization layer in accordance with one of the Claims 1 to 9, characterized in that it is created on transducer or carrier surfaces made from metal, glass, silicon, silicon dioxide, silicon nitride, plastic or on surfaces with topography.

11. Use of the immobilization layer in accordance with one of the previous claims to produce biosensor recognition layers through (covalent) coupling in or Immobilization of chemical or biological recognition molecules.

12. Use in accordance with Claim 11, characterized in that the recognition molecules are capture oligonucleotides.